

General Studies-3; Topic– Environmental pollution and degradation.

Management of Urban Lakes in India

1) Introduction

- Lakes are important part of urban ecosystem.
- At present, in India, lakes and wetlands are in extremely bad shape and are in varying degrees of environmental degradation.
- “It shall be the duty of every citizen of India, to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures” (Article 51A –Constitution of India).

2) NGT's Recent Order

- The National Green Tribunal recently imposed a Rs 50-crore fine on the Karnataka government and a Rs 25 crore on the city's municipal government (BBMP) for negligence that led to the city's lakes sporting flotillas of toxic froth—and even catching fire in the case of Bellandur.
- Apart from the fine, the Karnataka government will have to put Rs 500 crore in an escrow account for clean-up of three lakes and furnish Rs 100 crore performance guarantee with regard to meeting deadlines on clean-up execution.

3) Reasons behind NGT's Order

- In March 2017, the BBMP had sanctioned illegal construction around a lake, in violation of an earlier NGT order.
- Projects were being “sanctioned by the state government without ensuring preventive, restorative and controlling measures”.
- State and the local governments' failure to act has led to rampant encroachment.
- 98% of lakes suffer from encroachment that has choked off recharging.
- Unchecked flow of untreated waste water (90% of the lakes suffer from this).

4) Importance of Lakes

- Lakes perform significant environmental, social and economic functions.
- They range from being a source of drinking water, recharging groundwater, acting as sponges to control flooding, supporting biodiversity and providing livelihoods.
- Water in lakes is an easily available source of water for the needs of many sectors of economy such as agriculture, domestic and industrial.
- These waterbodies play a very vital role in maintaining environmental sustainability particularly in urban environments especially when the cities are facing the challenges of unplanned rapid urbanization.

5) Present Status / Threats to Urban Water Bodies

- According to a study, nearly 80% of surface water in India—rivers, lakes, canals, etc—to be highly polluted.
- This is mostly due to untreated domestic sewage flowing into these water bodies from urban areas and, in the case of some rivers, due to untreated effluent from factories.
- At present, in India, lakes and wetlands are in extremely bad shape and are in varying degrees of environmental degradation.
- Today these water bodies are encroached, full of sewage and garbage.

- As a result, instead of rainwater, it is the sewage and effluents that are filling up urban waterbodies.
- Today urban lakes have turned into hazards that get choked even with low rainfall and overflow into the blocked canals during high rainfall causing floods in the city.
- Misuse of these water bodies by local communities for their cultural or religious festivals such the immersion of idols.
- Unplanned tourism activities without systematic planning and regulation is another major threat to urban water bodies.
- Dal Lake in Srinagar, Tso Morari and Pongsho Lakes in Ladakh where the unplanned and unregulated tourism has posed long-term negative impacts.
- Entry of nutrients through raw sewage has become the part of lake system and cause various destructive changes in the waterbody such as growth of aquatic weeds in lakes and ponds.

6) Centre for Ecological Studies at IISc

- Of the Bangalore city's 125 lakes covered in a study by the Centre for Ecological Studies at IISc, only four were found to be in a fair state.
- While 25 were either dying or dead with dumping of solid/liquid waste of such a scale that they had little or no water.
- But the problem isn't just of Bengaluru's or Karnataka's inaction.

7) Way Forward

- The NGT's Karnataka order should spur others states into acting on pollution in their jurisdiction.
- The green tribunal incentivised the states to act against polluters in a "polluter pays" model.
- Hefty fines, for lax state and local governments as well as private sector polluters, will go a long way in ensuring action against pollution.
- The ecosystem services provided by a waterbody must be valued in terms of quantification of its benefits.
- Without making the citizens aware of the importance and benefits of lakes and wetlands in their lives, it is extremely difficult to implement laws effectively.
- Stakeholder participation and capacity building must be used as an important instrument for better management of urban waterbodies.